

# Prox-in-a-Box

## 4-Door Proximity Access Control System



**Visonic Ltd**

## Programming Guide

### 1. INTRODUCTION

Prox-in-a-Box (PIAB) is a stand-alone RFID proximity Access Control System. The system is easy to install and program and lends itself to many access control applications. It does not require a PC for programming or use. One PIAB unit can control up to four doors and may be shared by 3,000 users. For larger installations the PIAB controller can be networked with three additional units to control up to 16 doors.

PIAB proximity readers enable easy access, while eliminating the need to remember passwords or PIN numbers.

Every action is logged. For example, when a cardholder presents the card to the reader, the exact time, date, and door used are logged. Programming activities are also logged. An action such as adding a new access card to the system is logged and can later be reviewed. This provides the organization with access control that permits the user to audit up to 1,000 events.

PIAB is easily installed and programmed by a security system professional. It uses a standard backup battery, typical of burglar alarm systems, to maintain the system operation in the event of a power loss.

A **PIAB-KIT** is supplied with the following components:

- PIAB Control Unit installed in a metal cabinet.
- TRM-1 Programming Terminal
- Two RDR-2 Proximity Readers (Additional readers can be purchased separately)
- Transformer
- CRD-25 pack of 25 Proximity Access Cards
- Programming and Installation manuals
- Screwdriver

**PIAB-1** is an add-on system that includes:

- PIAB Control Unit installed in a metal cabinet.
- Transformer
- Programming and Installation manuals

Use up to three PIAB-1 controllers networked to an existing PIAB-KIT to form an access control system for up to 16 doors.

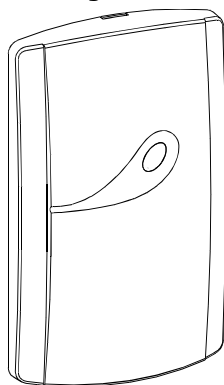
### 2. PROX-IN-A-BOX COMPONENTS

#### 2.1 PIAB-1 Control Unit

The PIAB control unit contains the hardware and the connections to the readers, to the TRM-1 programming terminal and to the external relays. The control unit can work in conjunction with up to four readers and doors. A realtime clock with a 3V lithium battery keeps time, and an internal memory uses the 3V battery to retain the event log even during a power outage.

#### 2.2 RDR-2 External Proximity Reader

PIAB is equipped with two proximity readers that are installed at the desired access control point. Proximity access cards are used as keys to open these doors. The access card presented to the reader emits a coded RF signal that the reader reads, and sends to the PIAB controller. The controller verifies that the card is valid and energizes an output relay that releases the lock. All activity involving the readers is recorded and logged.

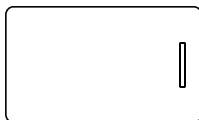


#### 2.3 CRD-1 Access Cards

Proximity access cards are programmed to open specified doors on specified days and at specified times of the day, ensuring the highest security.

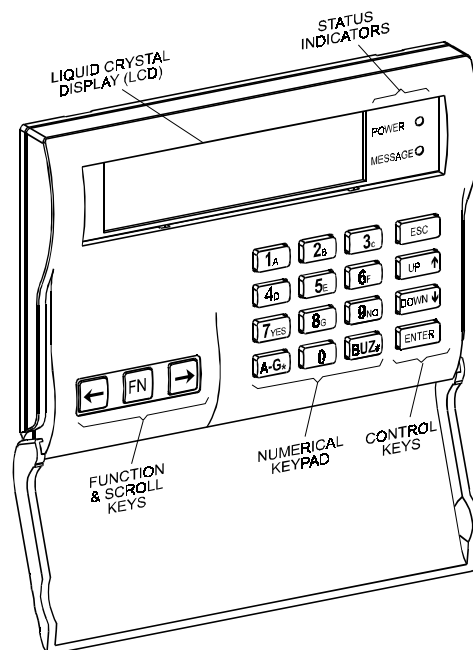
PIAB is supplied with 25 access cards. Additional cards can be purchased separately. Up to 3,000 access cards can be used in the system.

In case of loss or theft of an access card, the card's data can be easily deleted from the PIAB programming terminal.



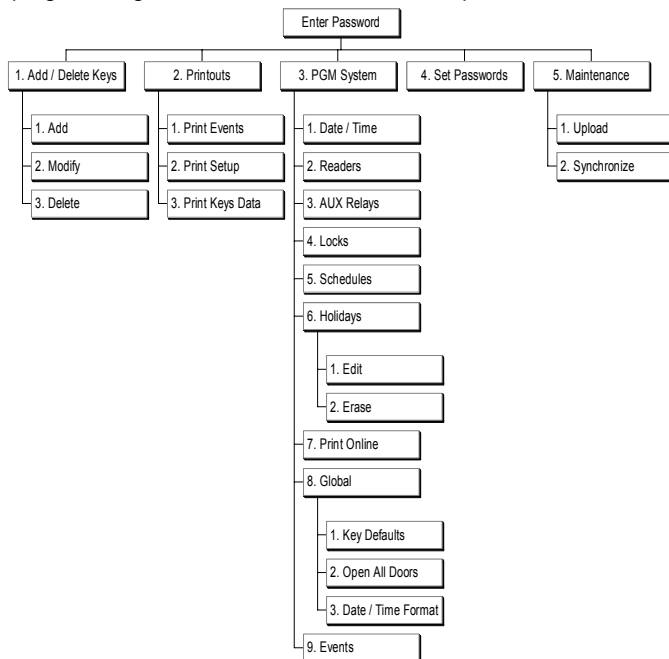
#### 2.4 TRM-1 Programming Terminal

The TRM-1, shown here, enables you to set up PIAB by programming access cards, locks, and other system's functions. All programming is done at the TRM-1.



### 2.4.1 Menu Options

PIAB provides menus that enable you to access different programming options. The following illustration shows the programming menu with the different menu options.



### 2.4.2 Using the TRM-1

- Asterisks near the menu option designate the selected option.
- Scroll through menu options by pressing **[UP]** and **[DOWN]**, or by entering the corresponding number on the keypad of the programming terminal.
- Press **[FN]** to toggle between AM and PM when setting times.
- Scroll through time and date fields by pressing **[←]** and **[→]**.
- Press **[ESC]** to return to the previous menu level
- To exit the programming mode Press **[ESC]** or wait 60 seconds.

### 2.4.3 LCD Display

The LCD display indicates the current status of PIAB. In normal mode, the current date and time are displayed, and open locks are shown. In programming mode, menu options and fields are displayed.

The following example shows the display in normal mode with doors 3 and 5 unlocked:

```
12:36:23  03/12
          3 5
```

The display shows the current time and date in the following format: HH:MM:SS and MM/DD. For example, if the time is 12:36PM and the date is March 12<sup>th</sup>, the display reads 12:36:00p 03/12.

In idle state the second line is blank. When a door is unlocked, the second line displays the door's number. If programmed to do so, the second line is also used to display alarm and trouble conditions. For example, when an invalid access card is presented to the reader, INVALID KEY is displayed. The user needs to acknowledge this condition in order to clear the display. Note: Pressing the "\*" in idle screen, displays the TRM-1 software version.

## 3. INITIAL SETUP

Ensure that PIAB is properly installed according to the hardware installation guide before you begin programming the unit.

Please read and make sure you fully understand the instructions before you attempt to program PIAB. Once entering the programming mode you must press a key at least once every 60 seconds to ensure that PIAB remains in programming mode. This prevents unauthorized use of the programming terminal if left unattended.

When you first apply power to the PIAB, a beeping sound is emitted and the following screen is displayed:



**Note: When you first activate PIAB, a beeping sound is emitted to notify the user that PIAB has not yet been programmed for use.**

Before programming clear the display and turn off the buzzer:

- Press **[FN]** several times until the display is cleared and the amber message LED is off. This will prepare the PIAB for programming.
- Press **[BUZ]**, which acts as a toggle switch and turns off the buzzer.

Having completed the setup procedure, you can turn the buzzer on again to sound an audible message when an ALARM or TROUBLE event occurs.

**Note: The PIAB comes with a factory preset installer password (password #1) "2975". It is highly recommended to change this password immediately upon installation (see sec. 3.2).**

### 3.1 Setting up the Initial Password

**Note: The password #1 (installer password) serves as the master password, enabling you to enter programming mode and set up PIAB defaults. If the password is compromised and it is necessary to change it, refer to sec. 3.2. If the password is forgotten, reset it as follows.**

#### To reset up the Master password:

A. On the control unit, press the **Password Reset** button. The following prompt is displayed on the TRM-1:

```
ENTER H. PASSWORD
```

B. Enter initial password 1234. The following prompt is displayed:

```
ENTER PASSWORD #1
#### ####
```

C. Enter a new four-digit password in the first set of #### and confirm the new password by entering the same password in the second set of ####. For security reasons, 4 identical digits or a simple 1234 are not acceptable as passwords.

D. Press **[ENTER]**. The initial password is accepted as Password #1 at Level #1 enabling total access to the PIAB system.

**Note: By setting the initial password you are allowed to continue programming the PIAB.**

## 3.2 Creating Passwords for Other Users

Creating passwords for other users enables you to allow other users to access the programming functions. For example, one or more people may be responsible for allocating access cards to users.

PIAB lets you define up to sixteen passwords. The system administrator and programmers use passwords to set up access control for all users. Each password is allocated a security level, enabling the user selective access to the programming mode, as follows:

|                             |                                                                  |
|-----------------------------|------------------------------------------------------------------|
| <b>Level 1:</b>             | Add, modify, and delete access cards                             |
| <b>System Administrator</b> | Create printouts<br>Program PIAB<br>Set passwords<br>Maintenance |
| <b>Level 2:</b>             | Add, modify, and delete access cards                             |
| <b>Programmer</b>           | Create printouts<br>Program PIAB                                 |
| <b>Level 3:</b>             | Add, modify, and delete access cards                             |
| <b>Operator</b>             | Create printouts                                                 |

It is recommended to assign passwords at this point.

**Important! Keep an accurate list of password allocations, as well as the access cards assigned to each user. Please refer to appendix 1.**

## 4. PROGRAMMING THE SYSTEM

**Note:** Programming is carried out with the TRM-1 programming terminal. Only users holding password level 1 or 2 can program the PIAB.

The programming menu has five categories, each having its own sub menu. Every time you use TRM-1, a password prompt is displayed. Enter your password to display the menu options and begin programming PIAB.

The main setup of the system is done in menu **3. PGM Systems** which has nine sub menus as follows:

1. **Date/Time:** Sets up the date and time.
2. **Readers:** Activates/deactivates the readers.
3. **Auxiliary Relays:** Sets the time intervals for the relays.
4. **Locks:** Sets the parameters of the locks.
5. **Schedules:** Sets up to eight time schedules.
6. **Holidays:** Sets up to four unique holiday schedules.
7. **Print online:** Sets printing options.
8. **Global:** Sets defaults and date format.
9. **Event:** Sets the event types.

### To begin programming:

- Press **ENTER** to activate the PIAB. A password prompt is displayed
- Enter your password. The first few menu options are displayed. Press **DOWN** to see the others.
- Continue the set up as described below.

**Reminder:** While in programming the TRM-1 starts beeping after 30 seconds if no key is pressed. It automatically exits the programming mode if no key is pressed for 60 seconds. To re-enter the programming mode, press "ENTER" and key your password.

### To allocate passwords:

- A. Press **ENTER**, master password to enter programming mode
- B. In programming menu, scroll **DOWN** to **4. SET PASSWORD** and press **ENTER**, or press **4**.
- C. The following screen is displayed:

CODE SETUP  
PASSWORD #: \_ \_

- D. Enter a password number from 1-16 and press **ENTER**. The following screen is displayed:

NEW PASSWORD #  
#### ####

- E. Enter a four-digit password twice, as described in step B, *Setting up the Initial Password*. A *Level* prompt appears.
- F. Enter security level 1, 2, or 3, as described above, and press **ENTER**. The new password is saved.

## 3.3 Deleting Passwords

Enter the password number to be deleted (from 1-16) and press **ENTER**. The following screen is displayed:

NEW PASSWORD #  
#### ####

Enter \*\*\*\* (8 asterisks) as the new password and **ENTER**. The previous password will be deleted and a message will confirm it.

## 4.1 Setting Date and Time

The time clock can be displayed in 12-hour (American) format or the 24-hour (European) format, in the following structure: HH:MM:SS. The date is set as MM/DD (American) or DD/MM (European) format with a default of the current year. This means that if the time is 8:30PM and the date is January 15, the display reads 08:30:00p 01/15 in the American version, or 20:30:00 15/01. Initially, this line displays a series of dashes. Once you set the time and date, the display always shows the current time and date.

### To set the format:

- A. In the main menu, press **3** or scroll **DOWN** to select **3. PGM SYSTEM** and press **ENTER**.
- B. In the programming menu, press **8** or scroll **DOWN** to select **8.Global Setup** menu option and press **ENTER**. Press **3. Date Format**.
- C. The screen displays the American format (default):

DATE FORMAT AMER  
01/06/00 12:25p

- D. Press the FN button to change the format to European.
- E. Press **ENTER**. The current date and time are saved.

### To set the date and time:

- A. In the main menu, press **3** or scroll **DOWN** to select **3. PGM SYSTEM** and press **ENTER**.
- B. In the programming menu, press **1** or scroll **DOWN** to select **1. DATE/TIME** menu option and press **ENTER**.
- C. The following screen is displayed:

SET DATE/TIME  
00/00/00 12:25p

- D. Enter the current month/day/year and time. Use the function key **FN** to toggle between AM and PM.
- E. Press **ENTER**. The current date and time are saved.

## 4.2 Setting-Up the Readers

Each control unit can operate up to 4 readers. By default, readers one through four are ON. When using more than one PIAB controller in your system, you must enable readers five through sixteen as explained below.

### To set up the reader:

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **2** or scroll **[DOWN]** to select **2. READERS** and press **[ENTER]**.

The reader setup is displayed, as follows:

READER SETUP  
READER#1 ON

- To modify the reader setup, scroll to the reader you want to turn on or off. Readers 1-16 are sequentially displayed.

To turn ON a specific reader, press **[7 YES]**.

To turn OFF a specific reader, press **[9 NO]**.

- Press **[ENTER]** to save your changes.

## 4.3 Defining Event Types

PIAB records and logs every action that changes the status of the reader. These actions are classified into 26 event types that include:

- User-initiated events, for example, presenting an access card or pressing the CALL button.
- Lock status events, for example, TAMPER, or FORCED DOOR.
- System status events, for example, BATTERY LOW.

PIAB can log up to 1000 events. In addition, logged events can be exported to a printer, computer, or other external device via auxiliary relays.

Each event type can be set up to operate auxiliary relay #1, auxiliary relay #2, both relays or none.

Up to 32 recent events can be viewed on the TRM-1 display. Each event type can be selected for viewing on the TRM-1 display.

### To set up event types:

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **9** or scroll **[DOWN]** to select **9. EVENTS** and press **[ENTER]**. The event type setup is displayed, as follows:

VALID KEY  
RELAY#1 DISP?Y

- To modify the event type, scroll to the event type you want to modify. Event type 1-26 are sequentially displayed.

To select no relays, press **[0]**.

To select relay #1, press **[1A]**.

To select relay #2, press **[2A]**.

To select BOTH relays, press **[3C]**.

To display this event type, press **[7 YES]**.

To disable display of this type press **[9 NO]**.

- Press **[ENTER]** to save your changes.

The event types are shown below:

| No. | Display        | Event Description                                                        |
|-----|----------------|--------------------------------------------------------------------------|
| 1   | VALID KEY      | Valid access card presented to reader.                                   |
| 2   | INVALID KEY    | Invalid access card presented to reader.                                 |
| 3   | INVALID DOOR   | A valid access card was detected trying to enter an unauthorized door    |
| 4   | INVALID TIME   | A valid access card was detected trying to enter at an unauthorized time |
| 5   | ALARM          | Alarm situation exists.                                                  |
| 6   | INPUT TROUBLE  | Trouble situation exists.                                                |
| 7   | INPUT RESTORED | Trouble situation cleared.                                               |
| 8   | DURESS         | Duress situation exists.                                                 |
| 9   | TAMPER         | Tamper situation exists.                                                 |
| 10  | EXT SYSTEM     | External system accessed.                                                |
| 11  | CALL           | CALL button pressed from outside the access point                        |
| 12  | REQ EXIT       | REQUEST TO EXIT button or motion detector activated                      |
| 13  | FORCED DOOR    | Door forced open.                                                        |
| 14  | SETUP          | PIAB setup changed.                                                      |
| 15  | PASSWORD CHG   | PIAB password modified.                                                  |
| 16  | KEY ADDED      | An access card has been added to memory.                                 |
| 17  | KEY DELETED    | An access card has been removed from system.                             |
| 18  | PRINTOUT       | Printout event initiated.                                                |
| 19  | LOGOUT         | Operator logged out of the system                                        |
| 20  | LEFT OPEN      | Door propped open.                                                       |
| 21  | LATCH PROBLEM  | Latch position sensor timed out.                                         |
| 22  | ALLOW ENTRY    | ALLOW ENTRY button was pressed and door unlocked.                        |
| 23  | LOGIN          | A user has logged into the system.                                       |
| 24  | DOOR CLOSED    | Door has closed                                                          |
| 25  | LATCH RESTORED | Latch operation restored.                                                |
| 26  | AC FAIL        | AC power failure.                                                        |
| 27  | AC RESTORED    | AC power restored following failure.                                     |
| 28  | BATTERY LOW    | Low Battery condition.                                                   |
| 29  | BAT RESTORED   | Battery power restored                                                   |
| 30  | OPEN DOORS     | Auxiliary input triggered to open all doors                              |

## 4.4 Auxiliary Relays

PIAB can be programmed to permit selected event types to trigger an action via a relay output. There are two auxiliary relays on each PIAB controller. By networking up to four controllers you may program up to eight user-defined auxiliary outputs.

Auxiliary relays are driven by event types. Each event type can be programmed to activate either one relay or both relays of that controller, and at the same time the corresponding relay on controller number 1.

An auxiliary relay can be wired to activate an alarm or buzzer, for example, to alert the person on duty that something is wrong, and that the event printout should be viewed for more information.

An auxiliary relay timer can be programmed to operate from 1-99 seconds. If an additional event type triggers the relay, the timer is automatically reset and starts again.

## To Program auxiliary relays:

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **3** or scroll **[DOWN]** to select option **3. AUX RELAYS** and press **[ENTER]**. The auxiliary relay setup is displayed:

```
AUX RELAY TIMER
RELAY#1  TIME: __
```

- Set up the auxiliary relays, as follows:
  - Press **[UP 1]** and **[DOWN]**, to select the desired the auxiliary relay.
  - Enter the time in seconds from 1-99 and move to the next relay.
- Continue programming the auxiliary relays and press **[ENTER]**.

## 4.5 Locks

Each control unit controls up to four locks. Each lock is programmed separately.

The lock setup menus enable you to input additional functions that are not lock-specific. For example, a DURESS event type can be logged and sent to an auxiliary relay, regardless of the lock involved.

The following terms are used in this section:

- RTE:** Request-to-Exit. A button or a motion detector located inside the secured area, releasing the lock and allowing the person to leave (this function is optional).
- N.O.:** Normally open. Specifies that the device relay contact is normally open and will close upon alarm or activation.
- N.C.:** Normally closed. Specifies that the device relay contact is normally closed and will open upon alarm or activation.
- D. POS:** Door position sensor. Specifies the status of the door, for example, FORCED DOOR, or DOOR AJAR. (This function is optional).

### To program the door lock:

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **4** or scroll **[DOWN]** to select **4. LOCKS** and press **[ENTER]**. The lock setup is displayed:

```
LOCK SETUP
SELECT LOCK: ##
```

- Enter the corresponding lock number, as specified in the hardware setup (1-16). Press **[ENTER]**. The following screen shows the default value:

```
LOCK # 1
UNLOCK TIME: 5 #
```

- Enter a number between 1-99 to specify the number of seconds the lock latch should be released and press **[ENTER]**. The following screen is displayed:

```
LOCK # 1 RTE N.O.
0.DISABLED
```

- Enable/disable the RTE function, as follows:
  - To enable the RTE function, press **[7 YES]**.
  - To disable the RTE function, press **[9 NO]**.
 The default RTE device is N.O. To change to N.C. press **[FN]**. To change back to N.O. press **[FN]**, again. Press **[ENTER]**. The following screen is displayed:

```
LOCK # 1 DPOS N.O.
0.DISABLED
```

- To define D.POS (Door Position):
  - To enable the default door position, press **[7 YES]**.
  - To disable the default door position, press **[9 NO]**.
 The default D.POS device is N.O. To change to N.C. press **[FN]**. To change back to N.O. press **[FN]**, again.

Press **[ENTER]**. The following screen is displayed:

```
LOCK # 1 AUX # 1 N.O.
3.EXT SYSTEM
```

- If required, the system can be programmed to activate Auxiliary Relay 1, if one of the following inputs is defined:

| No. | Function    | Description                                                                                                                                     |
|-----|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 0   | DISABLED    | Input is disabled.                                                                                                                              |
| 1   | LATCH POS   | Input is connected to a micro-switch that detects the status of the latch in the door strike (EMS).                                             |
| 2   | TAMPER      | Input is connected to a tamper micro-switch installed on the control unit and/or reader.                                                        |
| 3   | EXT SYSTEM  | External system input signal.                                                                                                                   |
| 4   | DURESS      | Input indicating a duress situation.                                                                                                            |
| 5   | CALL        | Input is connected to an external CALL button.                                                                                                  |
| 6   | EXT ALARM   | External signal indicating an alarm condition.                                                                                                  |
| 7   | ALLOW ENTRY | Input signal signifying that a button was pressed from the inside to permit entry. The relay connector releases the latch and unlocks the door. |
| 8   | OPEN DOORS  | Input causing all locks in the system to open for a time period defined in Global setting (see <b>7. GLOBAL</b> ).                              |

- Press **[ENTER]**, and repeat step G for the input to activate the Auxiliary Relay 2.

- Press **[ENTER]**. The following screen is displayed:

```
LOCK#1 HOLD OPEN
TIME: __
```

- If D.POS is enabled, enter a number between 5-255 to specify the number of seconds the door can be held open without causing a LEFT OPEN event type to be logged. Enter 000 to disable the LEFT OPEN message. Press **[ENTER]** to save your changes.

### To program tamper switch:

**Note:** The tamper switch is factory installed and programmed in UL versions of the PIAB.

In case of a need to program the tamper switch:

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **4** or scroll **[DOWN]** to select **4. LOCKS** and press **[ENTER]**. The lock setup is displayed:

```
LOCK SETUP
SELECT LOCK: ##
```

- Enter the lock number 3 and press **[ENTER]**. Press **[ENTER]** three times to get to AUX1.
- Make sure that AUX1 input polarity is N.O. If not, press **[FN]** key to change from N.C. to N.O.
- Press 2 or the down arrow **[DOWN]** to select TAMPER for this auxiliary input.
- Press **[ENTER]** twice to get back to LOCK.
- If you have more than one PIAB controller, repeat steps C-F for LOCKS #: 7 (lock 3 in controller 2), 11 (lock 3 in controller 3), 15 (lock 3 in controller 4).
- Press ESC to exit programming

In order to show tamper events on the TRM-1 display, you need to set TAMPER as a displayed event. Refer to section **4.3 Defining Event Types**.

## 4.6 Setting Schedules

A schedule specifies when a specific access card is allowed entry through specific doors. A schedule is based upon specific hours, days of the week, and holidays. Each access card is assigned two of eight possible schedules.

When defining a schedule, the selected days of the week and holiday schedules appear as capital letters or numbers. When a day of the week or holiday schedule is deselected, it is represented by an underscore.

### To program a schedule:

- In the main menu, press **3** or scroll **[DOWN]** to select **3.PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **5** or scroll **[DOWN]** to select **5. SCHEDULES** and press **[ENTER]**. The following screen is displayed:

SCHEDULE SETUP  
SELECT #\_

- To select a schedule, enter a number from 1-8 and press **[ENTER]**. The following screen is displayed:

SCHEDULE #1 TIME  
12:00a 11:59p

- In the displayed screen, enter the from and to times for this schedule in hours and minutes, for example, 08:00a 05:00p, meaning from 8:00AM to 5:00PM. Choose AM or PM for each time selection. Use **[←]** and **[→]** to advance move the cursor. Use the **[FN]** key to toggle between AM and PM.

- Press **[ENTER]**. The following screen is displayed:

SCHEDULE #1 DAYS  
MTWTF\_\_1\_\_4

- In the sample screen shown here, Monday through Friday are selected. Saturday and Sunday are not selected, and are therefore not included in this schedule. Holiday schedules 1 and 4 are included in this schedule, whereas holiday schedules 2 and 3 are not included (see sec. 4.7 Setting Holidays).

- To modify the days of the week and holiday schedules included in this schedule, move the cursor to the appropriate day or holiday schedule and press **[7YES]** to select it, or press **[8NO]** to deselect it. Press **[ENTER]** to save your changes.

## 4.7 Setting Holidays

Four holiday schedules can be defined to override regular schedules. Your organization may define a comprehensive holiday schedule that includes all recognized national and local holidays. In addition, your organization may require special holiday schedules that enable employees to come to work on some holidays and not on others. Each schedule can include any number of dates as specified holidays.

Example: If December 25, 2000 is defined as a holiday, the user will not be able to enter unless that holiday type is included in that user's time schedule.

### To program a holiday schedule:

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **6** or scroll **[DOWN]** to select **6. HOLIDAYS** and press **[ENTER]**. The following screen is displayed:

HOLIDAY SETUP  
\*1.EDIT

- In the holiday setup menu, press **1** or scroll **[DOWN]** to select **1. EDIT** (if not displayed) and press **[ENTER]**. The following screen is displayed:

HOLIDAYS TYPE  
01/06/00 0

- Define a date for a holiday schedule, as follows:
  - Press **[←]** and **[→]** to move through months.
  - Press **[UP↑]** and **[DOWN↓]** to move through the days of the month.
- Allocate the specified date to one of four holiday schedule types by pressing a number between 1 and 4.
- Press **[ENTER]** to save the holiday in the specified holiday schedule.
- Repeat steps B-F for each date you want to add to a holiday schedule.

### To clear a selected date from a holiday schedule:

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **6** or scroll **[DOWN]** to select **6. HOLIDAYS** and press **[ENTER]**.
- In the holiday setup menu, press **1** or scroll **[DOWN]** to select **1. EDIT** and press **[ENTER]**.
- In the *Holidays Type* display, do one of the following:
- Enter the date you want to clear, as described in *Step D* of the previous section, *To set a holiday schedule*.
- Press **[FN]** to move to the date that you want to remove from the holiday schedule.
- Press **0** to remove the specified date from the selected holiday schedule.
- Press **[ENTER]** to save your changes.

### To delete all holiday schedules:

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.
- In the programming menu, press **6** or scroll **[DOWN]** to select **6.HOLIDAYS** and press **[ENTER]**.
- In the holiday setup menu, press **2** or scroll **[DOWN]** to select **2. ERASE** and press **[ENTER]**. The following confirmation display is shown:

ERASE HOLIDAY  
SCHEDULE N

- Do one of the following:
- To preserve all holiday schedules, press **[9NO]** and **[ENTER]**. Holiday schedules remain unchanged.
- To clear all holiday schedules, press **[7YES]** and **[ENTER]**. All defined holiday schedules are deleted.

## 4.8 Creating the Default Access Card

The default access card, that is access card #0, is a template that serves as the basis for all programmable access cards and is not used for actual entry. After the default is set up, user access cards are programmed with the selected settings of this default card.

Setting up the default access card includes the following:

- Assigning access to any of the available doors.
- Assigning a date validity range.
- Assigning one or two schedules.

### To program the default access card:

**Note:** Doors numbered 10-16 are represented by the letters A-G in the following manner:

Decimal: 10 11 12 13 14 15 16  
Hex: A B C D E F G

- In the main menu, press **3** or scroll **[DOWN]** to select **3. PGM SYSTEM** and press **[ENTER]**.

- B. In the programming menu, press **8** or scroll **[DOWN]** to select **8. GLOBAL** and press **[ENTER]**. Press **1** to select **KEY DEFAULTS** and the following screen is displayed:

```
KEY0   DOORS
123456789ABCDEFG
```

The second line lists the door locks, where A through G represent doors 10 through 16 respectively.

- C. Deselect all unavailable doors by entering the number or letter of the corresponding door. To enter the letter of the corresponding door, press **[A-G]** and the number as it appears on the programming TRM-1 terminal keypad. For example, Door C is deselected by pressing **[A-G]** and **3**. The deselected doors are replaced by underscores.
- D. To reselect a deselected door, enter the number or letter of the corresponding door. The underscore is replaced by the appropriate number or letter.
- Press **[ENTER]**. The following screen is displayed:

```
KEY#0   DATE RNG
FROM:   00/00/00
```

- E. Enter the starting date from which all access cards will be active. Press **[ENTER]**. The following screen is displayed:

```
KEY# 0   DATE RNG
TO:      00/00/00
```

- F. Enter the expiration date for all access cards, if **required**, or leave as 00/00/00 for no expiration date. Press **[ENTER]**. The following screen is displayed:

```
KEY#0
SELECT SCHED# _ _
```

- G. Enter the **two** most often used schedules, if any, and press **[ENTER]**. If you want to select only one schedule, enter the same schedule number twice. A confirmation screen is displayed, as follows:

```
KEY#0 SAVED
```

## 4.9 Programming Access Cards

Programming access cards includes

1. Adding
2. Modifying
3. Deleting

Adding an access card is a four-step process:

**Step 1:** Presenting the access card to the reader.

**Step 2:** Assigning access to selected doors.

**Step 3:** Allocating validity dates for the access card.

**Step 4:** Allocating one or two schedules to the access card.

Up to two schedules can be defined for each user. It is commonly used if a user works a split workday.

### To add an access card:

- A. In the main menu, press **1** or scroll **[DOWN]** to select **1. ADD/DEL KEYS** and press **[ENTER]**.
- B. Select the **1. ADD KEY** menu option and press **[ENTER]**. The following screen is displayed:

```
ADD KEY
PRESENT NEW KEY
```

- C. Present the access card to the reader. The following screen is displayed:

```
KEY#   DOORS
123456789ABCDEFG
```

The second line displays all door locks, where A through G represent doors 10 through 16 respectively. Deselected doors are represented by underscores.

**Note:** The display shows the default doors and schedule setting as set up previously in the default key setup.

- D. Accept default doors for this access card, or select specific doors, as follows:
- Select/deselect specific doors, by entering the number or letter of the corresponding door. To enter the letter of the corresponding door, press **[A-G]** and the number as it appears on the programming terminal keypad. For example, Door C is selected or deselected by pressing **[A-G]** and **3**. The door number appears on the display when selected, or is replaced by an underscore when deselected.
  - To select/deselect **all** doors for this access card, press **[FN]**. All available doors on the second line of the display are shown when selected, or replaced by underscores, when deselected. Press **[ENTER]**. The user is granted access privileges to all selected doors, and the following screen is displayed:

```
KEY#   DATE RNG
FROM:  00/00/00
```

- E. Enter the date that the access card will become valid. Keep the default (current) date for cards that have no start date. Press **[ENTER]**. The following screen is displayed:

```
KEY#   DATE RNG
TO:    00/00/00
```

- F. Enter the expiration date of the access card. If the date is 00/00/00, that card has no expiration date. Press **[ENTER]**. The following screen is displayed:

```
KEY#
SELECT SCHED# _ _
```

- G. Allocate one or two schedules to the access card, as follows:

- To enter two schedules, enter both schedule numbers, for example, to select schedules 3 and 8 for this card, enter 38.
- To enter one schedule only, enter that schedule number twice. For example, to enter schedule 3 only enter 33.

Press **[ENTER]**. A confirmation screen is displayed, as follows:

```
KEY# ADDED
```

### To modify an access card:

- A. In the main menu, press **1** or scroll **[DOWN]** to select **1.ADD/DEL KEYS** and press **[ENTER]**.
- B. Select the **2.MODIFY KEY** option and press **[ENTER]**. The following screen is displayed:

```
MODIFY KEY
1.TYPE KEY#
2.READ KEY
```

**Note:** The third line appears after scrolling **[DOWN]**.

- C. There are two methods to modify a card: either by typing the card number or presenting the card to a reader.
- To enter the card number manually, select **1. TYPE KEY** number and press **[ENTER]**. The following screen is displayed:

```
MODIFY KEY
ENTER KEY# : # # #
```

Enter the card number and press **[ENTER]**.

- To present a card to the proximity reader, select **2. READ KEY** and press **[ENTER]**. The following screen is displayed:

```
MODIFY KEY
PRESENT KEY
```

Present the card to the reader, The following screen is displayed:

KEY# DOORS  
123456789ABCDEFG

- D. Continue modifying the access card, as described in *Steps D to G, To add an access card.*

#### To delete an access card:

- A. In the main menu, press **1** or scroll **DOWN** to **1.ADD/DEL KEYS** and press **ENTER**.
- B. Select the **3.DELETE KEY** menu option and press **ENTER**. The following screen is displayed:

DELETE KEY  
1.TYPE KEY#  
2.READ KEY

Note: The third line appears after scrolling **DOWN**.

- C. Enter an access card by selecting menu option **1. TYPE KEY** or **2.READ KEY** and following the instructions as described in step C, *To modify an access card.* The following screen is displayed:

DELETE KEY 123  
ARE YOU SURE **N**

If you decide not to delete the card, press **ENTER** or wait 10 seconds.

- D. Press **YES** to confirm and press **ENTER** to save. The access card is deleted.

## 5. PRINTING

### 5.1 Printout Settings

Refer to the *Hardware Manual* for information about connecting a printer to the PIAB controller.

You can select the printout device to which all logged information will be printed, between a serial printer and a computer screen.

#### To select the printout device:

- A. In the main menu press **3** or scroll **DOWN** to select **3. PGM SYSTEM** and press **ENTER**.
- B. In the programming menu, press **7** or scroll **DOWN** to select **7. PRINTOUTS** and press **ENTER**. The following screen is displayed:

PRINTOUT SETUP  
ONLINE PRINT **Y**

- C. Press **ENTER**. The following screen is displayed:

PRINTOUT DEVICE  
1.PRINTER  
2.COMPUTER

Note: The third line appears after scrolling **DOWN**.

- D. Select one of the following:
- Press **1** or scroll to select **1. PRINTER** and press **ENTER**.
  - Press **2** or scroll to select **2. COMPUTER** and press **ENTER**. The selected printing device is now the default printer.

### 5.2 Printing Data

PIAB provides the option to print three types of data.

- Events:** Prints the event log.
- Setup Configuration:** Prints the PIAB system set up, including the reader setup, the lock setup, and schedule setup.
- User Card data:** Prints a list of all the access cards currently in use.

#### 5.2.1 Print Events

PIAB enables you to print the event log. Refer to *Printout Settings* to choose the printer type: printer or computer terminal.

#### To print the event log:

- A. In the main menu, press **2** or scroll **DOWN** to **2. PRINTOUTS** and press **ENTER**. The following screen is displayed:

PRINTOUTS  
1.PRINT EVENTS  
2.PRINT SETUP  
3.PRINT KEYS

Note: To view all lines scroll **DOWN**.

- B. Select **1. PRINT EVENTS** and press **ENTER**. The following screen is displayed:

EVENT PRINTOUT  
SELECT RC# \_

- C. Enter the controller number (1-4) from which to print events and press **ENTER**.

The following screen is displayed and the data is printed:

PRINTOUT  
CANCEL PRINT **N**

Press **YES** and **ENTER** to stop printing, if required.

#### 5.2.2 Print Setup

PIAB enables you to print out the complete system setup including:

- Reader setup.
- Holiday setup.
- Auxiliary relay setup.
- Lock setup.
- Schedule setup.
- Access card defaults (Access card 0).

Refer to *Printout Settings* to choose the printer type: printer or computer terminal.

#### To print the setup:

- A. In the main menu, press **2** or scroll **DOWN** to select **2. PRINTOUTS** and press **ENTER**.
- B. Select **2. PRINT SETUP** from the menu and press **ENTER**. The following screen is displayed and the setup is printed.

PRINTOUT  
CANCEL PRINT **N**

Press **YES** and **ENTER** to stop printing, if required.

#### 5.2.3 Print Access Cards Records

PIAB lets you print data for all currently active access cards. The printout includes the following information:

| Name | Description                                     |
|------|-------------------------------------------------|
| KR#  | Access Card Record number (1-3000)              |
| FD   | Start Date                                      |
| TD   | Expiration Date                                 |
| SC1  | First Schedule                                  |
| SC2  | Second Schedule                                 |
| VLL  | Valid Lock List (up to 16 door locks, 1-9, A-G) |

Refer to *Printout Settings* to choose the printer type: printer or computer terminal.

#### To print access card records:

- A. In the main menu, press **2** or scroll **DOWN** to select **2.PRINTOUTS** and press **ENTER**.
- B. Select **3.PRINT KEYS** from the menu and press **ENTER**. The following screen is displayed and the setup is printed.

PRINTOUT  
CANCEL PRINT **N**

Press **YES** and **ENTER** to stop printing, if required.

## 6. GLOBAL SETUP

The Global Setup allows to define main feature of the system:

1. Key Defaults – defines key No. 0 as a default key. When adding keys, this default appears and allows quick adding of keys with the same door and schedule limitations (see sec. 4.8B).

## 7. MAINTENANCE

### 7.1 Upload

The RS-232 output allows backup of keys data and setup information. All you need is a terminal emulation software program that can save an ASCII file.

- A. Connect the PIAB controller #1 to COM1 serial port on your computer.
- B. Run the software and set it to upload (host) waiting mode.
- C. In the main menu, press 5 or scroll  to select **5.MAINTENANCE** and press .
- D. The following screen is displayed:

1. UPLOAD  
2. SYNCHRONIZE

- E. Press **1. UPLOAD** or . The PIAB will dump the information to the PC, and the display shows:

UPLOADING...  
CANCEL UPLOAD?

- F. When done, save the file in your software.

**Note:** To download the file back to the PIAB, simply activate the download function of your upload/download software, while the PIAB controller #1 in idle mode.

2. Open Doors – defines the unlock duration of Open All Doors function (see sec. 4.5).
3. Date Format – toggles between American and European date and time formats (see sec. 4.1).

### 7.2 Synchronize

When programming the PIAB system of more than one controller, all data is automatically updated from controller #1 to the other controllers connected via RS-485.

In case a new controller is added at a later stage to the system, you need to activate the **2. SYNCHRONIZE** function in order to transfer the data to the newly added controller.

- A. In the programming menu, press 5 or scroll  to select **5. MAINTENANCE** and press . The following screen is displayed:

1. UPLOAD  
2. SYNCHRONIZE

- B. Press **2. SYNCHRONIZE** or . The PIAB will dump the information to the PC, and the the display will show:

SYNCHRONIZING  
CANCEL SYNCH?

**Note:** The downloading, uploading and synchronizing processes need to collect or distribute data of up to 3000 users among several controllers and get acknowledgment from each controller for each key. This may take several minutes (between 1- 10 minutes), depending on the number of users and controllers.

## WARRANTY

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**Warning:** The user should follow the installation and operation instructions and among other things test the Product and the whole system at least once a week. For various reasons, including, but not limited to, changes in environmental conditions, electric or electronic disruptions and tampering, the Product may not perform as expected. The user is advised to take all necessary precautions for his /her safety and the protection of his/her property.

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### Appendix 1 - System Administrator Data Form

| No. | User Name           | Doors                           | SC1 | SC2 | Expiration Date |
|-----|---------------------|---------------------------------|-----|-----|-----------------|
| 01  | John Smith - Sample | 1 - 3 4 5 - 7 8 9 - B C - - - G | 1   | 2   | 12/31/99        |
| 01  |                     |                                 |     |     |                 |
| 02  |                     |                                 |     |     |                 |
| 03  |                     |                                 |     |     |                 |
| 04  |                     |                                 |     |     |                 |
| 05  |                     |                                 |     |     |                 |
| 06  |                     |                                 |     |     |                 |
| 07  |                     |                                 |     |     |                 |
| 08  |                     |                                 |     |     |                 |
| 09  |                     |                                 |     |     |                 |
| 10  |                     |                                 |     |     |                 |
| 11  |                     |                                 |     |     |                 |
| 12  |                     |                                 |     |     |                 |
| 13  |                     |                                 |     |     |                 |
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| 15  |                     |                                 |     |     |                 |
| 16  |                     |                                 |     |     |                 |
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| 18  |                     |                                 |     |     |                 |
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| 21  |                     |                                 |     |     |                 |
| 22  |                     |                                 |     |     |                 |
| 23  |                     |                                 |     |     |                 |
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| 50  |                     |                                 |     |     |                 |